

REMARKS

As a preliminary matter, the withdrawal of several rejections under 35 U.S.C. §§ 112, 102, and 103 is acknowledged with gratitude.

Applicants are amending the specification and claims to rectify several apparent typographical errors. The correct mathematical symbol for multiplication has been included in the units of thermal resistance,  $m^2 \cdot K/W$ , throughout the specification and in claims 1, 11, 27, 32, and 34. Also, the numeral designating the roll of insulating label stock in Figure 7 is now correctly given as "90" on page 4 of the specification. In addition, the specification has been amended to delete "thermoplastic" as a modifier for "inorganic fibers".

In addition, Applicants are amending claims 18, 19, and 22 to rectify several apparent grammatical errors. The amendments include the substitution of "to" for "and" to improve the language relating to the claimed ranges of thickness, and the substitution of the singular "claim" for the plural "claims". These amendments are purely formal and unrelated to patentability. As such, Applicants believe that these amendments introduce no new matter into the application and that they do not affect the scope of the claims.

Claims 1, 11, and 31 are also amended to include a Markush group of materials comprised by the thermal insulating layer. A basis for this amendment may be found in the specification on page 5 beginning at line 9 and continuing to page 6 at line 4, *inter alia*. Applicants therefore believe that this amendment introduces no new matter into the application.

Moreover, claims 27, 31, and 34 are amended to include the limitation that the sealed edges prevent the penetration of fluid into the insulated label or label stock. A basis for this amendment may be found in the specification on page 10

at lines 19 to 28, *inter alia*. Applicants therefore believe that this amendment introduces no new matter into the application.

In addition, new claim 35 is added to the application. This new claim finds a basis in the specification on page 4 at line 9 continuing to page 5 at line 4, on page 8 at lines 1 to 18, and in the claims as originally filed, *inter alia*. Accordingly, it is believed that no new matter is introduced into the application by new claim 35.

Finally, claim 10 is cancelled herein without prejudice, to maintain consistency with the amendments to claim 1 presented herein.

Summary of the Official Action

The Official Action has rejected claims 1, 2, 4, 6, 7, 8, 10, 11, 18, 19, 21, 22, 23, 27, 28, 31, and 32 under 35 U.S.C. § 102 as anticipated by U.S. Patent No. 4,273,816, issued to Tollette (hereinafter "Tollette"). Claims 3 and 9 have been rejected under 35 U.S.C. § 103 as obvious over Tollette in view of U.S. Patent No. 5,851,617, issued to Keiser (hereinafter "Keiser"). Claim 20 has been rejected under 35 U.S.C. § 103 as obvious over Tollette in view of U.S. Patent No. 6,306,492, issued to Yamada et al. (hereinafter "Yamada"). Claims 25, 26, 29, 30, and 34 are rejected under 35 U.S.C. § 103 as obvious over Tollette in view of U.S. Patent No. 6,479,431, issued to McFall et al. (hereinafter "McFall"). These are the sole reasons presented in the Official Action dated January 29, 2004, why the present application should not be allowed.

Applicants respectfully request that these rejections be withdrawn upon reconsideration in light of the following reasoning:

Rejection under 35 U.S.C. § 102

It is well established that, an anticipatory reference must set forth every element of the invention identically as claimed. See, e.g., M.P.E.P. § 2131. Applicants respectfully submit that the claims as amended are not anticipated by Tollette, because Tollette does not identically set forth Applicants' claimed invention.

Tollette describes "insulating" labels for fragile containers, such as glass bottles. The Tollette labels are characterized by a laminated structure that includes a layer of a transparent protective film, e.g., Mylar®, that is adhered to a paper layer that is, in turn, adhered to a foam layer. Tollette's labels are "insulating" because of the foam layer. The primary purpose of the foam layer is to protect against mechanical shock, although thermal insulation is mentioned in passing as a beneficial side effect of the foam layer.

First, independent claims 1, 11, and 31, as presently amended, do not include foam. Nor does Tollette teach or suggest any other "insulating" material, such as, for example, the fiberfill batt, melt blown fibers, knit fabric, woven material, and fleece specifically recited in claims 1, 11, and 31 as presently amended. Therefore, independent claims 1, 11, and 31, as amended, are not anticipated by Tollette. Therefore, Applicants respectfully request that the rejection of claims 1, 11, and 31 be withdrawn upon reconsideration.

Second, although the layers of the labels described in Tollette are laminated together, the edges of the labels are unsealed, and therefore water can enter the labels freely, for example through the edge of the paper layer by capillary action. Water will not affect shock insulation, of course, as long as the label does not actually disintegrate upon wetting. The Examiner's attention is respectfully directed to the discussion in column 3 at lines 33 to 48, in which Tollette states that high wet-strength paper should be included in the labels used

for beverage containers, or when it is desired to wash the labeled containers, whereas standard Kraft paper can be used for labeling packages of dry goods.

In this connection, Tollette also requires a closed-cell foam, again presumably because the edges of the label described in Tollette are unsealed and therefore permeable to fluids. A fluid entering an open cell foam layer through its unsealed edges would be freely transported through the foam, and would therefore be able to compromise the integrity of the label by wetting the adjoining paper layer.

In contrast to the label set forth in Tollette, independent claims 27, 31, and 34, as amended herein, specifically recite that the edges of the insulating label stock are sealed so that fluid cannot penetrate them. Although there are many reasons why sealed edges are an advantageous feature of the label stock of the present invention, Applicants draw particular attention to the fact that the insulating properties of the claimed label would be severely degraded if the thermal insulating layer of the invention were saturated with a fluid. Those who have become chilly after their clothing has been dampened, as by rain, are familiar with a degradation of thermal insulation properties that results from the same governing principle.

Consequently, the unsealed edges described in Tollette constitute a significant structural difference from Applicants' claimed invention. Therefore, Applicants also respectfully submit that independent claims 27, 31, and 34, as amended, are also not anticipated by Tollette.

Because independent claims 1, 11, 27, 31, and 34, as amended, are not anticipated by Tollette, it follows by statute that claims 2, 4, 6, 7, 8, 18, 19, 21, 22, 23, 28, and 32, which depend, directly or indirectly, from the newly amended independent claims, are also not anticipated. Claim 10 is cancelled

herein, thus rendering moot its rejection under 35 U.S.C. § 102. Accordingly, Applicants also respectfully request that the rejection of dependent claims 2, 4, 6, 7, 8, 10, 18, 19, 21, 22, 23, 28, and 32 for anticipation be withdrawn upon reconsideration.

Rejections under 35 U.S.C. § 103

It is similarly well established that a *prima facie* case of obviousness is not made out if every element of the claimed invention is not found in the cited references, or if the cited references do not include a suggestion to combine the references.

Claims 3 and 9 are rejected over Tollette in view of Keiser. Claim 9 is cancelled herein, thus rendering this rejection moot. With respect to claim 3, the portion of Keiser cited in the Official Action (col. 3 at line 59 to col. 4 at line 3) discloses that metallized films, metallized paper, and metal foils are considered to be the equivalent of foams and sheets formed of synthetic staple fibers. Metal foils are known by those of skill in the art to be thermal conductors, rather than thermal insulators. Therefore, Applicant respectfully submits that Keiser does not teach or suggest that foams are equivalent to sheets formed of synthetic staple fibers for purposes of thermal insulation.

Furthermore, Applicants believe that foam is not in fact a functional equivalent of fiberfill batt, melt blown fibers, knit fabric, woven material, fleece, and the like, for the purposes of the present invention. There are many significant differences between foams and the claimed thermally insulating materials, among which Applicants point with particularity to the fact that polyurethane, polypropylene and polyethylene foams that are within the claimed CLO range will produce insulating label stock that is too stiff and too thick to be conveniently processed on high-speed printing and labeling equipment. The excessive stiffness will result in difficult application to containers. In addition, the

excessive thickness will result in too few labels on a roll of stock, thus causing decreased production due to an excessive rate of label stock roll changes.

In addition, Applicants note that many technical difficulties were overcome in the course of reducing their invention to practice, difficulties that would not have arisen in developing a foam-based insulating label stock. Notably, Applicants overcame the tendency of fiberfill batt, melt blown fibers, knit fabric, woven material, and fleece to diminution of their thermal insulating properties as a result of being crushed or pulled out of shape by pressure and tension applied by high-speed labelling equipment. Thermal insulating foams are not susceptible to the same extent as the claimed materials to the loss of thermal insulating properties through deformation.

As noted above, Tollette does not teach or suggest any thermal insulating material besides foam. Because claim 1, as amended herein, no longer encompasses foam, and because the cited art does not include a suggestion to combine the references, Applicants respectfully submit that a *prima facie* case for the obviousness of claim 9 over Tollette and Keiser has not been made out. Accordingly, Applicants respectfully request that this rejection be withdrawn upon reconsideration.

Claim 20 is rejected as allegedly obvious over Tollette in view of Yamada. As is set forth above in detail, Tollette does not teach or suggest any thermal insulating material besides foam. Claims 1 and 31, from which claim 20 depends, are amended herein such that they no longer encompass foam. Yamada does not even include the word "foam". Moreover, Yamada specifically states in col. 1 at line 8 that the biaxial polyester films described therein are useful as heat transfer recording materials. This is clearly inconsistent with a proposition that Yamada includes a teaching or suggestion to produce Applicants' claimed thermally insulating materials. Accordingly, Applicants

respectfully submit that a *prima facie* case for the obviousness of claim 20 over Tollette and Yamada has not been made out. Accordingly, Applicants respectfully request that this rejection be withdrawn upon reconsideration.

Finally, claims 25, 26, 29, 30, and 34 are rejected as obvious over Tollette in view of McFall. First, claims 11 and 34 include a specific recitation of a thermal resistance range. Thermal resistance is neither taught nor suggested in Tollette and McFall. Therefore, the cited art does not teach or suggest every element of the claimed invention.

Second, as is set forth above in detail, Tollette neither teaches nor suggests any thermal insulating material besides foam. McFall does not include the word "foam" or any teaching or suggestion regarding the desirability of thermal insulation. Therefore, the cited art does not include a suggestion to combine the references to make Applicants' claimed invention.

Furthermore, McFall discloses that non-woven fabrics may be suitable substrates; however, McFall also discloses that metal foils are considered to be the equivalent of non-woven fabrics. See, e.g., col. 3 at lines 35-40. As noted above, metal foils are generally considered to be thermal conductors, rather than thermal insulators. This is clearly inconsistent with a proposition that McFall includes a teaching or suggestion to produce Applicants' claimed thermally insulating materials.

In summary, Applicants respectfully submit that the Official Action has not set forth a *prima facie* case for the obviousness of claims 11 and 34 over Tollette and McFall. Because independent claim 11, as amended, is not obvious over Tollette and McFall, it follows by statute that claims 25, 26, 29, and 30, which depend, directly or indirectly, from claim 11, are also not obvious.

Accordingly, Applicants respectfully request that this rejection be withdrawn upon reconsideration.

**Conclusion**

A Petition for an Extension of Time for one month and the required fee for the extension is filed concurrently herewith. Should any further fee be required in connection with the present amendment, the Examiner is authorized to charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

In view of the above remarks and amendments, it is felt that all claims are in condition for allowance and such action is respectfully requested. Should the Examiner believe that an interview or other action in Applicants' behalf would expedite prosecution of the application, the Examiner is urged to contact Applicants' attorney by telephone at (302) 992-6824.

Respectfully submitted,



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Dated: June 1, 2004